

## Epidemiology Program Protocol for Ebola Virus Disease (EVD)

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All health professionals evaluating a patient for suspected Ebola infection have been instructed to call the Connecticut Department of Public Health (CT DPH) Epidemiology Program for approval to submit specimens for testing at CDC. Notifications of asymptomatic travelers will be assessed by the CT DPH and triaged to the applicable Local Health Department for monitoring as needed.

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### 1. **Symptomatic Individuals**

The Ebola case definition for a person under investigation (PUI) is a person with the following characteristics (<http://www.cdc.gov/vhf/ebola/hcp/case-definition.html>):

1. Fever\* (measured or subjective) OR severe headache, fatigue, muscle pain, vomiting, diarrhea, abdominal pain, or unexplained hemorrhage; AND
2. An epidemiologic risk factor within the 21 days before symptom onset (<http://www.cdc.gov/vhf/ebola/exposure/risk-factors-when-evaluating-person-for-exposure.html>)

Epidemiologic risk factors are divided into 4 exposure categories: high risk, some risk, low (not zero) risk, and no identifiable risk. **Symptomatic individuals with high, some, or low (not zero) risk require medical evaluation.** It is anticipated that they will be hospitalized until a diagnosis is made. Recommendations for testing based upon clinical criteria are found in the monitoring and movement guidelines (<http://www.cdc.gov/vhf/ebola/hcp/monitoring-and-movement-of-persons-with-exposure.html>).

Symptomatic individuals with ‘no identifiable risk’ do not require medical evaluation for Ebola but may need to be evaluated for other diseases.

**DPH role:** CT DPH Epidemiology Program on-call staff will complete the Connecticut ‘Screening Form for Evaluation and Testing for Ebola Virus Disease’ to determine if testing and/or other public health action is warranted.

- **Infection Control/Prevention:** If the patient is evaluated at or admitted to a healthcare facility, standard, contact, and droplet precautions are recommended. For further details refer callers to the CDC infection control (<http://www.cdc.gov/vhf/ebola/hcp/infection-prevention-and-control-recommendations.html>) and personal protective equipment (<http://www.cdc.gov/vhf/ebola/hcp/procedures-for-ppe.html>) guidance.

**LHD role:** If a Local Health Department receives a call about a symptomatic potential case the caller should be referred to the CT DPH Epidemiology Program for screening.

\*A temperature  $\geq 100.4^{\circ}\text{F}$  is the screening threshold. However, testing may be recommended for individuals with lower temperatures and/or nonspecific symptoms (e.g. fatigue) based upon exposure category and clinical presentation.

### 2. **Asymptomatic Individuals**

Asymptomatic individuals requiring public health follow-up includes those with high, some, and low (but not zero) risk exposures. Notification of asymptomatic travelers returning from affected areas who underwent airport screening will be made via Epi-X to the DPH Epidemiology Program. Notifications may also be received from local clinicians, schools, workplaces, etc. as concerns arise. Guidance regarding management of asymptomatic individuals is detailed in the “Interim US Guidance for Monitoring and Movement of Persons with Potential Ebola Virus Exposure” (<http://www.cdc.gov/vhf/ebola/exposure/monitoring-and-movement-of-persons-with-exposure.html>). This guidance represents the minimum requirements. Depending upon the situation, more stringent restrictions than that described here may be recommended by CT DPH.

**DPH role:** CT DPH Epidemiology Program staff will interview the traveler using the Connecticut ‘Screening Form for Travelers Returning from Ebola Affected Areas’ to verify the accuracy of the airport screening risk

assessment. Based upon the information gathered on this form, the DPH Commissioner will make decisions on a case by case basis as to the appropriate monitoring type (Active or Direct active) and movement restrictions. The Local Health Director in the jurisdiction the asymptomatic individual(s) are destined for will be notified and informed of the decided monitoring and movement restrictions. DPH staff will enter the individuals into Maven (see below).

**LHD role:** Once notified by DPH of the traveler's monitoring type and movement restrictions, begin 21-day twice daily fever/symptom monitoring as per the Connecticut 'Ebola Virus Contact and Traveler Monitoring Follow-up Protocol'. Maintain a daily log of fever/symptom monitoring and enter into the Maven contact/travel monitoring wizard on a daily basis. Assist quarantined individuals with needs (e.g., food, shelter, security) as applicable. Assure that there is a plan in place for transport of the individual for medical evaluation should he/she become symptomatic that includes pre-notification of relevant parties (i.e., CT DPH, EMS, hospital).

3. **Laboratory Testing:** Sample submission to CDC is summarized below. EVD is generally detectable in infected patients on the third day after illness onset by reverse transcription real-time (rRT) PCR.
4. **Maven:** All persons requiring monitoring by public health should be entered by CT DPH staff into Maven CT- EDSS by selecting "Viral hemorrhagic fever" as the 'Disease' and selecting "Ebola" as the 'Type of viral hemorrhagic fever' in the Ebola Consultation Record Wizard.

The case "status" should be selected according to the guidelines below:

- **Confirmed:** Individuals with a positive EVD test
  - **Probable:** Symptomatic individuals with high, some, or low (not zero) risk exposures within the 21 days before onset of symptoms (i.e., a PUI)
  - **Unknown:** Asymptomatic individuals with either high, some, or low (not zero) risk exposures who are being monitored. A 'contact/travel monitoring wizard' has been added to Maven for tracking symptoms in these individuals.
  - **Contact:** Individuals who are close contacts of a confirmed or probable case who are being monitored for EVD symptoms. These individuals should be linked back to the case. A 'contact/travel monitoring wizard' has been added to Maven for tracking symptoms in these individuals.
5. **Contact Tracing:** Individuals who may have had close contact with a symptomatic confirmed or probable case should be identified upon determining that EVD testing is indicated so that contact monitoring can be initiated as quickly as possible in the event the case tests positive for EVD. Identification of individuals requiring contact monitoring will be guided by information collected on the 'Ebola Virus Disease Contact Tracing Form'. See the Connecticut "Ebola Virus Contact and Traveler Monitoring Follow-up Protocol" for further details and monitoring forms.
  6. Put hardcopy screening forms in Susan Petit's mailbox.
  7. Notify State Laboratory (Diane Barden: (w) 860-920-6550, (c) 860-250-9596, (BT cell) 860-716-2705, (Lab after hours) 860-920-6500) of all new patients under investigation via email and phone. Include the Maven ID# in the body of your email and cc Randy Nelson, Matt Cartter, Lynn Sosa and Terry Rabatsky-Ehr.
  8. Notify Local Health Director in jurisdiction where potential case resides via phone **and** e-mail. Include the Maven ID# in the body of your email.

## Specimen Collection and Testing for EVD

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All testing requests approved by the Epidemiology Program should be sent from the clinical laboratory **DIRECTLY** to the CDC and/or to a regional reference laboratory. The specimens should **NOT** be sent to the DPH State Laboratory first. The DPH State Laboratory will assist/ facilitate via phone clinical labs in completing the paperwork and advising on the packaging and shipping of the specimen.

The preferred specimen for EVD testing is whole blood (minimum 4 ml) preserved with EDTA, clot activator, sodium polyanethol sulfonate (SPS), or citrate in a **PLASTIC** collection tube, and stored at 2-8°C.

Ebola virus generally is detectable in infected patients on the third day after illness onset by reverse transcription real-time (rRT) PCR.

Laboratories can be referred to the following guidelines:

<http://www.cdc.gov/vhf/ebola/hcp/interim-guidance-specimen-collection-submission-patients-suspected-infection-ebola.html>

Laboratorians who have additional questions about the process for submitting specimens for diagnostic testing for Ebola virus at CDC should be referred to DPH State Laboratory at (860) 920-6550 or after hours, at (860) 920-6500.